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EPA Region 5 Records Ctr.



317176

October 10, 2008

Dr. Leah Evison
U. S. EPA - Region 5 (SR-6J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

**Re: Sauget Area 2 Site – October 3, 2002 Unilateral Administrative Order
(UAO) Groundwater Operable Unit
Monthly Report; September 1 - September 30, 2008 Reporting Period**

Dear Dr. Evison:

Attached is the Monthly Report for the Sauget Area 2 Site October 3, 2002 Unilateral Administrative Order (UAO) - Groundwater Operable Unit. This submittal is in fulfillment of the monthly reporting requirements of the UAO, Section XII, paragraph 62, Progress Reports. This report is for the period September 1 – September 30, 2008.

Sincerely,

Steven D. Smith
Project Coordinator

cc: Ken Bardo, - U. S. EPA
Mayor Sauget - Sauget, IL
Sandra Bron – IEPA
Mike Coffey - USFWS
Village of Sauget – c/o P. H. Weis & Associates (Attn: Brian Nelson)
Mayor Frank Bergman – Cahokia
L. Glen Kurowski - Monsanto
Cathleen Bumb – Solutia
Linda Tape - Husch Blackwell Sanders, LLP
Richard Williams – Solutia

Sauget Area 2 Site - Sauget, Illinois

October 3, 2002 UAO – Groundwater Operable Unit

Status Report

Date of Report: October 10, 2008

Period Covered: September 1 - September 30, 2008

Work Performed During the Reporting Period

Site Work

- The site was mowed during the reporting period.

Groundwater Treatment

- As agreed upon with USEPA, the Groundwater Migration Control System (GMCS) continues to be operated to maintain the total pumping rate equal to the computed inflow rate, based on the average of the gradients measured in the two existing pairs of piezometers located immediately upgradient of the Site R landfill. The system was operated in the above manner during the reporting period, except on September 4th when it was shut down for approximately five hours and on September 14th for about eight hours, both at the request of the POTW.
- Well EW-3 repeatedly shut down on September 4th because an electrical breaker kept tripping. The problem was traced to a faulty power supply line between the main power board and the well. The well has been shut down until a new power supply line is installed.
- The system pumped less than required for a short period on September 6th because of an error in the control program. The error was corrected and the system was restarted.
- The signal from piezometer PZ-4OUT became erratic on August 14th and began to affect the signals from other sensors. The signal wiring was disconnected and the other signals stabilized. The problem was traced to a faulty signal cable which will have to be replaced. The piezometer was out of service for the entire month.

- Heavy rains on September 14th caused about 1.5 feet of water to collect in the EW-2 valve vault. This was sufficient to cause shorting in the electrical supply to the valve actuator and the actuator was removed for repair. Since this has been a recurring problem, the actuators on all the wells will be removed from the valve vaults and mounted in a weatherproof enclosure above ground surface. The equipment necessary to do this has been ordered. The absence of the actuator has not affected the system performance since the actuator is only used at very low flows.
- All of the piezometers were checked on September 19th by comparing manual water level readings with the sensor readings.
- Data from the second quarter 2008 groundwater samples collected from the performance monitoring wells were being validated during the reporting period. Third quarter 2008 groundwater samples were collected from these wells and surface water and sediment samples in the Mississippi River were also collected since the river stage declined sufficiently to ensure that groundwater was discharging to the river.
- Water level and pumping data for the reporting period are attached.

Submittals During Reporting Period

There were no documents submitted during the reporting period.

Work Scheduled for Next Reporting Period

- Continue operating the extraction system to maintain the total pumping rate equal to the computed inflow rate.
- Monitor the Mississippi River stage in order to determine an appropriate time for collection of the first 2008 semi-annual surface water and sediment samples and collect the samples when groundwater begins to discharge to the river.
- Submit the validated analytical data from the second quarter 2008 groundwater samples from the performance monitoring wells and analyze the third quarter 2008 samples.

PUMPING DATA

GROUNDWATER MIGRATION CONTROL SYSTEM

SEPTEMBER 2008 DAILY AVERAGE FLOW RATES AND GROUNDWATER LEVELS

Date/Time		PUMPING RATE					SWL
		Computed Q	Total Q	EW-1 Q	EW-2 Q	EW-3 Q	
9/1/2008	Daily Average	1303.95	1303.37	651.67	0.00	651.70	382.99
9/2/2008	Daily Average	1313.16	1312.48	656.23	0.00	656.25	382.70
9/3/2008	Daily Average	1315.07	1318.07	659.03	0.00	659.04	382.55
9/4/2008	Daily Average	1205.24	939.59	470.44	171.28	305.00	384.13
9/5/2008	Daily Average	523.98	541.22	282.42	282.33	0.00	391.14
9/6/2008	Daily Average	58.75	45.58	10.32	34.80	0.47	397.19
9/7/2008	Daily Average	86.73	83.39	12.35	71.04	0.00	395.07
9/8/2008	Daily Average	329.73	300.77	152.81	99.78	48.18	391.55
9/9/2008	Daily Average	705.93	697.66	348.82	348.84	0.00	388.58
9/10/2008	Daily Average	821.40	816.98	408.44	408.53	0.00	387.60
9/11/2008	Daily Average	933.26	932.55	466.30	466.26	0.00	386.46
9/12/2008	Daily Average	744.51	753.68	376.83	376.84	0.00	388.57
9/13/2008	Daily Average	429.90	437.12	218.56	218.56	0.00	391.75
9/14/2008	Daily Average	106.91	113.53	53.07	60.46	0.00	399.05
9/15/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	410.09
9/16/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	414.11
9/17/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	415.85
9/18/2008	Daily Average	0.00	3.01	1.60	1.41	0.00	416.29
9/19/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	415.93
9/20/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	414.40
9/21/2008	Daily Average	0.00	2.80	1.54	1.26	0.00	411.29
9/22/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	407.09
9/23/2008	Daily Average	0.00	0.00	0.00	0.00	0.00	402.57
9/24/2008	Daily Average	118.14	97.98	97.98	0.00	0.00	399.49
9/25/2008	Daily Average	327.98	311.59	162.93	148.67	0.00	397.37
9/26/2008	Daily Average	466.39	473.19	236.37	236.83	0.00	395.89
9/27/2008	Daily Average	563.08	557.43	278.74	278.68	0.00	394.97
9/28/2008	Daily Average	614.08	613.44	306.72	306.73	0.00	394.31
9/29/2008	Daily Average	586.08	579.95	289.98	289.97	0.00	394.33
9/30/2008	Daily Average	553.95	535.03	273.61	272.79	0.00	394.22

GROUNDWATER MIGRATION CONTROL SYSTEM

SEPTEMBER 2008 DAILY AVERAGE FLOW RATES AND GROUNDWATER LEVELS

Date/Time		GROUNDWATER LEVELS											
		PZ-5U	PZ-5D	Delta	PZ-6U	PZ-6D	Delta	PZ-7U	PZ-7D	Delta	PZ-8U	PZ-8D	Delta
9/1/2008	Daily Average	392.57	391.41	-1.16	392.74	392.23	-0.51	392.49	392.30	-0.19	392.44	390.92	-1.52
9/2/2008	Daily Average	392.41	391.22	-1.19	392.56	392.03	-0.53	392.30	392.12	-0.19	392.25	390.73	-1.51
9/3/2008	Daily Average	392.25	391.06	-1.20	392.39	391.87	-0.51	392.12	391.94	-0.18	392.09	390.57	-1.52
9/4/2008	Daily Average	392.37	391.30	-1.07	392.50	392.02	-0.48	392.27	392.19	-0.08	392.31	390.91	-1.41
9/5/2008	Daily Average	392.89	392.29	-0.60	392.81	392.36	-0.45	392.63	392.70	0.07	393.02	392.51	-0.51
9/6/2008	Daily Average	394.00	393.84	-0.15	393.78	393.54	-0.24	393.49	393.74	0.25	394.05	394.44	0.39
9/7/2008	Daily Average	394.34	394.11	-0.23	394.14	393.93	-0.21	393.88	394.11	0.23	394.43	394.66	0.22
9/8/2008	Daily Average	394.29	393.85	-0.45	394.21	393.99	-0.22	394.05	394.18	0.13	394.48	394.20	-0.28
9/9/2008	Daily Average	393.78	393.09	-0.69	393.83	393.48	-0.34	393.80	393.81	0.01	394.18	393.39	-0.78
9/10/2008	Daily Average	393.54	392.74	-0.80	393.57	393.17	-0.41	393.58	393.56	-0.01	393.96	393.04	-0.91
9/11/2008	Daily Average	393.21	392.34	-0.86	393.29	392.85	-0.44	393.32	393.26	-0.06	393.66	392.59	-1.07
9/12/2008	Daily Average	393.25	392.54	-0.71	393.29	392.88	-0.41	393.27	393.27	0.00	393.66	392.83	-0.83
9/13/2008	Daily Average	393.77	393.27	-0.49	393.73	393.41	-0.32	393.64	393.71	0.07	394.07	393.64	-0.43
9/14/2008	Daily Average	394.63	394.56	-0.06	394.39	394.16	-0.23	394.18	394.40	0.22	394.81	395.28	0.47
9/15/2008	Daily Average	396.14	396.99	0.85	395.36	395.22	-0.13	395.06	395.46	0.40	396.24	398.69	2.46
9/16/2008	Daily Average	397.61	398.95	1.35	396.40	396.34	-0.06	396.05	396.52	0.47	397.49	400.64	3.15
9/17/2008	Daily Average	399.18	400.84	1.66	397.65	397.63	-0.02	397.23	397.71	0.48	398.68	402.00	3.32
9/18/2008	Daily Average	400.61	402.27	1.66	399.02	399.01	-0.01	398.48	398.98	0.49	399.89	403.09	3.19
9/19/2008	Daily Average	401.70	403.24	1.53	400.26	400.26	0.00	399.69	400.16	0.48	400.99	403.92	2.93
9/20/2008	Daily Average	402.32	403.64	1.32	401.08	401.09	0.01	400.57	401.00	0.43	401.75	404.29	2.54
9/21/2008	Daily Average	402.48	403.41	0.94	401.49	401.49	0.00	401.07	401.44	0.37	402.09	403.96	1.87
9/22/2008	Daily Average	402.19	402.79	0.60	401.54	401.53	-0.01	401.22	401.50	0.28	401.96	403.09	1.14
9/23/2008	Daily Average	401.74	401.95	0.21	401.32	401.29	-0.04	401.01	401.24	0.23	401.50	401.85	0.35
9/24/2008	Daily Average	401.13	401.08	-0.05	400.85	400.80	-0.05	400.61	400.79	0.18	400.94	400.78	-0.16
9/25/2008	Daily Average	400.47	400.25	-0.22	400.25	400.10	-0.15	400.02	400.15	0.12	400.34	399.91	-0.43
9/26/2008	Daily Average	399.87	399.54	-0.33	399.69	399.47	-0.22	399.52	399.58	0.07	399.82	399.22	-0.60
9/27/2008	Daily Average	399.31	398.85	-0.46	399.16	398.89	-0.27	399.04	399.07	0.04	399.36	398.67	-0.69
9/28/2008	Daily Average	398.74	398.22	-0.52	398.65	398.35	-0.30	398.57	398.60	0.03	398.93	398.20	-0.74
9/29/2008	Daily Average	398.49	397.97	-0.52	398.42	398.10	-0.32	398.34	398.37	0.03	398.72	398.03	-0.68
9/30/2008	Daily Average	398.28	397.79	-0.49	398.24	397.95	-0.29	398.17	398.21	0.04	398.53	397.88	-0.65

GROUNDWATER MIGRATION CONTROL SYSTEM

SEPTEMBER 2008 DAILY AVERAGE FLOW RATES AND GROUNDWATER LEVELS

Date/Time		GROUNDWATER LEVELS							
		PZ-1_OUTSI	PZ-1_INSIDE	PZ-2_OUTSI	PZ-2_INSIDE	PZ-3_OUTSI	PZ-3_INSIDE	PZ-4_OUTSI	PZ-4_INSIDE
		DE		DE		DE		DE	
9/1/2008	Daily Average	386.86	388.16	382.81	390.30	382.97	389.11		384.05
9/2/2008	Daily Average	386.62	387.99	382.52	390.09	382.71	388.91		383.12
9/3/2008	Daily Average	386.50	387.80	382.42	389.89	382.57	388.72		382.84
9/4/2008	Daily Average	387.25	388.74	383.73	390.43	383.82	389.54		387.80
9/5/2008	Daily Average	390.97	389.70	390.04	391.08	390.19	390.66		391.89
9/6/2008	Daily Average	394.86	392.59	395.96	393.60	395.81	392.75		393.55
9/7/2008	Daily Average	394.17	393.10	394.21	393.97	394.15	393.10		393.93
9/8/2008	Daily Average	392.39	392.64	391.03	393.62	391.07	392.91		393.31
9/9/2008	Daily Average	390.54	390.98	388.19	392.09	388.31	391.84		393.14
9/10/2008	Daily Average	389.87	390.30	387.27	391.51	387.40	391.35		392.77
9/11/2008	Daily Average	389.09	389.62	386.15	390.90	386.30	390.85		392.38
9/12/2008	Daily Average	390.04	390.03	387.81	391.30	387.92	391.08		392.47
9/13/2008	Daily Average	391.91	391.42	390.74	392.55	390.76	392.05		393.19
9/14/2008	Daily Average	395.94	393.05	397.22	394.11	397.05	393.38		394.27
9/15/2008	Daily Average	402.81	394.75	407.75	395.66	407.07	395.09		396.20
9/16/2008	Daily Average	405.97	396.14	411.76	396.96	410.84	396.47		397.65
9/17/2008	Daily Average	407.95	397.62	413.50	398.35	412.54	397.78		398.93
9/18/2008	Daily Average	408.99	399.05	413.97	399.75	413.05	399.06		400.22
9/19/2008	Daily Average	409.32	400.30	413.77	400.97	412.89	400.27		401.34
9/20/2008	Daily Average	408.79	401.13	412.39	401.76	411.67	401.04		402.04
9/21/2008	Daily Average	407.13	401.42	409.53	402.11	409.01	401.37		402.28
9/22/2008	Daily Average	404.76	401.34	405.63	402.04	405.36	401.22		402.05
9/23/2008	Daily Average	402.07	400.96	401.43	401.66	401.39	400.74		401.43
9/24/2008	Daily Average	400.04	399.96	398.53	400.85	398.60	400.13		400.76
9/25/2008	Daily Average	398.54	398.78	396.52	399.68	396.63	399.00		399.90
9/26/2008	Daily Average	397.41	397.72	395.09	398.67	395.24	398.12		399.21
9/27/2008	Daily Average	396.59	396.88	394.17	397.89	394.37	397.43		398.67
9/28/2008	Daily Average	395.93	396.14	393.56	397.19	393.72	396.82		398.13
9/29/2008	Daily Average	395.77	395.91	393.60	397.02	393.72	396.59		397.92
9/30/2008	Daily Average	395.62	395.84	393.49	396.92	393.64	396.52		397.79